DOCUMENT RESUME

ED 428 940 SE 062 006

TITLE Skills-Based Scope and Sequence Guide: Science Grades K-6.

Target Skills and Sample Assessment Methods.

INSTITUTION Idaho State Dept. of Education, Boise.

PUB DATE 1997-00-00

NOTE 91p.

AVAILABLE FROM Idaho State Dept. of Education, Len B. Jordan Office

Building, P.O. Box 83720, Boise, ID 83720-0027.

PUB TYPE Guides - Classroom - Teacher (052)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS *Biological Sciences; Check Lists; Earth Science;

Educational Assessment; Elementary Education; *Elementary School Science; *Physical Sciences; *Science Process Skills;

Scientific Methodology

IDENTIFIERS Idaho; *Scope and Sequence

ABSTRACT

This guide is organized around a list of skills that all students should know and be able to do at each grade level from kindergarten through sixth grade. It provides parents, teachers, and students with knowledge of what is being taught in a logical scope and sequence by grade level. The purpose of this guide is to help build a basis for curriculum development, instructional strategy, and assessment practices and provide consistency across the state in what is being taught and learned. Schools may wish to use the guide as a resource for developing and writing curriculum at the local level. The listed skills are to be learned at a factual, applied/analysis, or synthesis/evaluation level. Sample assessment methods are included for teacher use. (ASK)





Science Grades K-6

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOUNCES INFORMATION CENTER (ERIC) This document has been reproduced as received from the person or organization originating it.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

☐ Minor changes have been made to improve reproduction quality.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Target Skills

∞

Sample Assessment Methods



DR. ANNE C. FOX STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

E SUPERINTENDENT OF PUBLIC INSTRUCTI
BOISE, IDAHO



C.

CL.

T. LaRon Smith, Idaho Department of Education Zan Payne, Idaho Department of Education

Beverly Hopp, Teacher Jamie Seeger, Teacher Carol Fulton, Teacher

Sandra Calkins, Teacher Shirley Wright, Teacher Peggy Hess, Teacher

Marlys McCurdy, Teacher

School Board Members Community Members Kara Kral, Parent Patrons

Compiled 1997

State Department of Education Len B. Jordan Office Building Boise, ID 83720-0027 Fax (208) 334-4664 P.O. Box 83720 (208) 332-6800

State Superintendent of Public Instruction Dr. Anne C. Fox

Tom C. Farley **Bureau Chief** Instructional Services

Division of State-Federal **Deputy Superintendent** Instructional Services Jerry R. Pelton

TABLE OF CONTENTS

	~	2	10	4	20	26	33
	:	:	•	•			
•	:	:	•	•	:	:	:
:	:	:		:	:	:	:
•	•	•	•	•	•	•	
:	:	:		:	:	:	
:	:	:	:	:	:		:
:	:	:	:	:	:	:	:
•	•	•	•	•	•	•	
•	•		•		•	•	
:	:	:	:	:	:	:	:
:	:	:	:		:		:
:	:	:	:		:		:
:	:	:	:	:	•	•	:
	•	•	•	•	•	•	•
:	÷	÷	:	:	:	-	:
:	:		:	:	:		:
	:		:	:	:		:
:	•	•	:	:	:	•	:
•	•	•	•	•	•	•	
÷	:	:	:	:	·	-	·
:	:		:	:			:
:	:		:	:	:	:	:
:	•		:	:	:	:	:
•	•		:	:		:	:
:			•		•		•
:	:	:	:	:		:	:
•	:	:	:	:		:	:
:	:	:	:	:	•	:	:
:	:	:	:	:	:	:	:
	-	•	:	:	•	:	:
	•		•	•	•	•	•
		:	:	:			•
:	:	:	:	:	:	:	:
:	:	:	:	:		:	:
:	:	:	:	:		:	:
-	-	:	:	:	:	:	:
	•		•	•	•	•	
:	:	:	:	:	:		•
:	:	:	:	•	:	:	:
:	:	:	:	•	:	:	:
	:	:	:	:	:	:	:
			•	•	•	•	•
:	:	:	:	:	:		•
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
:	:	:	:		:	:	:
:	:	:	:	:	:	:	:
•	:	:	:		:	:	
÷		:			•		•
:	:	:		:	:	:	:
7		:	:	:	:	:	:
ō	:	:	മ	:	•	:	:
Ĕ	Č	•	ğ	ന	Q	•	
\supset	Ŧ	æ	5	ğ	ğ	ф	ğ
Ŏ	ga	ā	р	<u> </u>	Ŋ	ā	20
3	<u>ē</u>	Ξ Ω	Ğ	þ	된	ā	٦
INTRODUCTION	Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Sixth Grade
∠	¥	讧	Š	F	ш	证	S





r



INTRODUCTION

The State Department of Education's Skills-Based Scope and Sequence Guide is organized around a suggested list of skills that teachers, and students with knowledge of what is being taught in a logical scope and sequence by grade level. The purpose of this guide is to help build a basis for curriculum development, instructional strategy, and assessment practices, and provide consistency across the state in what is being taught and learned. Schools may wish to use the guide as a resource in developing and writing curriculum at the all students should know and be able to do at each grade level from kindergarten through sixth grade. This guide will help provide parents, local level

The guide has been developed as a scope and sequence by a team of teachers, parents, school board members, community a factual, representatives, patrons, and State Department of Education specialists. The listed set of skills are to be learned at applied/analysis, or synthesis/evaluation level. There are sample assessment methods included for teacher use.

How to Use the Skills Based Scope and Sequence Guide

based on knowledge of many classroom teachers, skills identified in scope and sequence charts of the textbooks on the State of Idaho The skills are identified by grade level starting at kindergarten then progressing through the sixth grade. The skills were selected textbook adoption list, skills measured on the lowa Test of Basic Skills, skills measured on Idaho's direct assessments, and input from educators, patrons, and parents.

There are three processes that a teacher takes the student through for each skill. You will see an X placed in the column next to a skill where it is expected to be introduced, reinforced, and/or finally placed in long term memory. This helps the teacher determine the lesson and amount of repeated practices that will help achieve mastery of the skill.

ERIC
Full Text Provided by ERIC

Once the student achieves the skill the question is how to use it. We have identified three thinking levels for this ability. They are called factual, applied/analysis, and synthesis. The teacher can now develop an assessment to measure the skill. The same three thinking levels may be applied to the assessment chosen by the teacher.

It is our desire that students will be taken through the skills in a logical consistent format. Some students will be able to master the information much faster and should be allowed to progress as fast as possible through the grade levels.

Full Text Provided by ERIC	এbject: Science Grade Level: Kindergarten	inder	garte	ڇ				Skills-Based Scope and Sequence K-6	ence	K-6
	Target Skills	Intro- duced	Rein- forced	Long	Factual /	Applied Analysis	Synth Eval	Sample Assessment Methods Formal A	Applied Analysis	Synth
	Earth and Space Science									
	The Dynamic Earth									
	 Observe the major features of the Earth's surface. 	×			×			Assessment of a group project; teacher observation; free verbal response (open ended questions)		
	2. Observe seasons and weather.	×			×			Assessment of a group project; teacher observation; free verbal response (open ended questions)		
	Physical Science									
	Matter									
	 Observe physical changes of matter (melting, freezing, bending, tearing). 	×			×	_		Assessment of a group project; teacher observation; free verbal response (open ended questions)		
	Recognize states of matter (solid, liquid, gas).	×	_		×			Assessment of a group project; teacher observation; free verbal response (open ended questions)		
-										

<u>الم</u>

Skills-Based Scope and Sequence K-6

Grade Level: Kindergarten

Full Text Provided by ERIC	abject: Science Grade Level: Kinderga	nder	gart	rten				Skills-Based Scope and Sequence K-6	enbe	nce	K-6
	Target Skills	Intro- duced	Rein- forced	Long Term	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual /	Applied Analysis	Synth Eval
	Energy										
	3. Investigate sounds.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	
	Force and Motion										
	Investigate motion of various objects.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	
	5. Describe the motion of objects in their world.	×			×			Assessment of a group project; teacher observation; free verbal response (open ended questions)	×		
	Scientific Method										
	1. Apply scientific method informally.	×	_		×			Teacher observation; free verbal response (open ended questions)	×	_	
	Life Science										
	 Describe a variety of things found in the environment. 	×	_		×			Assessment of a group project; teacher observation; free verbal response (open ended questions)	×		_

Grade Level: Kindergarten

ESIGNATION TO THE PROPERTY OF THE PROPERTY OF

<u> </u>	Target Skills	Intro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied Analysis	Synth
7	. Compare size, shape, and structure of living things.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	-
I	Heredity	-									
က်	Observe changes that are part of simple life cycles.	×		_	×			Assessment of a group project; teacher observation; free verbal response (open ended questions)	×		
4.	Observe similarities and differences in offspring of plants and animals.	×		_	×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	
H	Human Body										
5.	Name and understand how the senses help people interact with the world.	×			×	_		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×		
٠ ن	. Identify and name body parts.	×			×			Assessment of a group project; teacher observation; free verbal response (open ended questions)	×		
7.	. Recognize the changes that take place during growth.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	
	Interdependence										

Full Text Provided by ERIC	Dablect: Science Grade Level: Kindergarten	inder	garte	L				Skills-Based Scope and Sequence K-6	Sequ	ence	K-6
	Target Skills	Intro- duced	Rein- forced	Long	Factual Applied Level Analysis	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Factual Applied Level Analysis	Synth
	8. Explore ways in which organisms and objects react to changing conditions.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	
	Explore the survival needs of plants and animals.	×			×	×		Assessment of a group project; teacher observation; free verbal response (open ended questions)	×	×	_

-:

ا الا

Skills-Based Scope and Sequence K-6

Grade Level: First

Science Science

Target Skills	-cutul peonp	Rein- forced	Long F	Factual A Level A	Applied S Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
Earth and Space Science										
The Earth in Space										
 Describe what can be observed in the sky by the unaided eye in the day and at night. 	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
Identify the basic components of the solar system.	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
The Dynamic Earth								19 1		
Observe the effects of weather.	×	,		×	×		Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	×	

Grade Level: First

Science Science

Ta	Target Skills	intro- duced	Rein- forced	Long Term	Factual /	Applied Analysis	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
占	Physical Science										
Ma	Matter										
-	Observe that objects in the world vary greatly in their properties (size, shape, color, texture, taste, odor).	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
7	Describe findings from investigating solids and liquids.		×		×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
က်	Investigate physical changes of matter.		×		×	×		Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	×	
En	Energy										
4.	Investigate sources of energy.	×			×	×		Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	×	

Page 7

23

Skills-Based Scope and Sequence K-6

Jabject: Science Grade Level: First

Ta	Target Skills	intro- duced	Rein- forced	Long	Factual /	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
က်	Identify sounds made by vibrating objects.	×		-	×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	,	
Fo	Force and Motion				_						
ω <u></u>	Observe how movement of objects influences other objects.	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
7.	Describe the motions of common objects in terms of speed and direction.	×	-		×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
∞	Observe and describe motion as change of position.	×						Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		_
် လ	Scientific Method										
	Apply scientific method informally.	×			×			Teacher observation; free verbal response (open ended questions)	×		
7.	Recognize that scientists use the scientific method.	×			×	_		Teacher observation; free verbal response (open ended questions)	×		

Grade Level: First

abject: Science

Ta	farget Skills	-ortu- duced	Rein- forced	Long Term	Factual /	Applied Analysis	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
Lif	Life Science										
Div	Diversity				-						
-	Describe how plants and animals survive in environment.	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
72	Observe a variety of habits.	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
က်	Classify plants and animals according to their characteristics (color, shape, size, texture, covering).	×			×	×		Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	×	
4.	Describe evidences of prehistoric animals and their habitats.	×	_		×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		-
He	Heredity										

23

29

Skills-Based Scope and Sequence K-6

		- -						SKIIIS-Based Scope and Sequence N-6	nh3		1
	Target Skills	intro- duced	Rein- forced	Long Term	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
رن ب	Describe physical similarities and differences between traits of parents and their offspring.	×			×			Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×	-	
1	Human Body										
ω <u></u>	Explain the importance of nutrition and good hygiene.	×			×	_		Assessment of a group project; assessment of individual project; free verbal response (open ended questions)	×		
7.	. Understand individuality and differences.	×			×	×		Work-sample evaluation; teacher observation	×	×	
	Interdependence										
ω	. Understand that living things share characteristics.	×						Free verbal response (open ended questions); teacher observation	×		
တ်	Observe how organisms are dependent upon each other for survival.	×			×	_		Free verbal response (open ended questions); teacher observation	×		
	 Describe the life cycles and needs of familiar organisms. 	×			×			Teacher observation; paper and pencil task; work-sample evaluation	×		

	ance K-6	Applied Synth Analysis Eval	
	edne	Factual Applied Level Analysis	
,	Skills-Based Scope and Sequence K-6	Sample Assessment Methods	
_		Long Factual Applied Synth Term Level Analysis Eval	
		Applied Analysi	
		Factual Level	
		Long Term	
	þ	Intro-Rein- duced forced	
	econ	-ortul duced	
	Grade Level: Second		
ER	』 bject: Science	Target Skills	

Target Skills	Intro- duced	Rein- forced	Long Term	Factual	Applied S Analysis E	Synth	Sample Assessment Methods	Factual	Applied Analysis	Synth Eval
Earth and Space Science										
The Earth in Space										
 Observe stars in relation to the Earth and the Universe. 	×			×			Free verbal response (open ended questions); work-sample evaluation	×		
2. Describe the seasons of the year.	×			×			Free verbal response (open ended questions); paper and pencil task; work- sample evaluation	×		
The Dynamic Earth				_					_	
 Make informed decisions about weather and describe it's effect on their lives. 	×				×		Free verbal response (open ended questions); teacher observation		×	
Physical Science										
Matter					_					
Classify objects by physical properties (hardness, softness, buoyancy, color,).	×			_	×		Assessment of a group project; paper and pencil task; teacher observation		×	
Classify matter by its state (solid, liquid, gas).		×			×		Paper and pencil task		×	

×

Explore the forces that move objects

×

×

Explore the forces that move

œ

objects.

Skills-Based Scope and Sequence K-6

Grade Level: Second

Synth Applied Analysis × × × Factual × × questions); paper and pencil task; free questions); paper and pencil task; free Sample Assessment Methods Free verbal response (open ended written response (essay, detail, or written response (essay, detail, or Assessment of individual project explanation) explanation) questions) questions) Synth Applied Analysis × × × Factual Level × × Long Tem Rein-forced × lntro-duced × × × × objects can be reversed and some Describe how things move or can Recognize that some changes to supports plant and animal life on Make predictions about moving Understand ways that the sun Investigate sources of energy Jabject: Science be made to move. Force and Motion **Target Skills** cannot. things. Earth. Energy 4. Ŋ. ဖ က

×

Work-sample evaluation; assessment of

×

×

Compare animals that are extinct

က

with those that exist today.

individual project

×

response (essay, detail, or explanation);

assessment of a group project

Work-sample evaluation; free written

×

×

their immediate surrounding with Compare plants and animals in

S

their habitat.

those in other habitats.

explanation)

×

Work-sample evaluation; assessment of

×

×

differences in plants and animals.

Compare likenesses and

4

individual project

Skills-Based Scope and Sequence K-6

Science G	Grade Level: Second	COUC	75		_			Skills-Based Scope and Sequence K-6) Sedn	ence	K-6
Target Skills		Intro- duced	Rein- forced	Long F Term	Factual A Level A	Applied &	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth
Scientific Method											
1. Apply scientific method informally.	od informally.		×		×			Teacher observation; free verbal response (open ended questions)	×		
2. Recognize that scientists use the scientific method.	ntists use the		×		×			Teacher observation; free verbal response (open ended questions)	×		
Life Science											
Diversity				_							
Recognize that the behavioral and physical characteristics of plants and animals help them survive in	behavioral and lics of plants em survive in	×			×			Paper and pencil task; free verbal response (open ended questions); free written response (essay, detail, or	×		

S
\odot

٠,

Level: Science Grade Level: Second

Tai	Target Skills	lntro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied Analysis	Synth Eval
Her	Heredity										
5.	Observe that offspring produced by plants or animals are similar to the parent at some stage of their development.	×			×			Free verbal response (open ended questions); teacher observation	×		
Hur	Human Body										
9	Identify the body parts and give their function (hear, lung, brain, stomach).	×			×			Assessment of individual project; worksample evaluation; free written response (essay, detail, or explanation); paper and pencil task	×		
7.	Name ways to keep the body safe.	×			×			Free verbal response (open ended questions); teacher observation; paper and pencil task	×		
Inte	Interdependence								_		
ω	Explore how plants and animals often interact to meet the needs of both groups.	×		_	×	×		Free verbal response (open ended questions); work-sample evaluation; assessment of a group project	×	×	·
ი	Describe natural and human changes in the environment.	×			×			Free verbal response (open ended questions); free written response (essay, detail, or explanation)	×		

33

Skills-Based Scope and Sequence K-6

Grade Level: Third

abject: Science

Ta	Target Skills	intro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth	Sample Assessment Methods	Factual	Applied Analysis	Synth Eval
Ear	Earth and Space Science										
The	The Universe										
7.	Understand that the Earth is one of several planets that orbit the sun and that the moon orbits the Earth.	×	×		×			Work-sample evaluation; assessment of a group project; paper and pencil task	×	<u>-</u>	
2.	Know that space exploration confirms that the Earth is spherical in shape.				×			Work-sample evaluation; paper and pencil task	-		
က်	Understand that telescopes are used to study distant objects like planets and stars.	×			×			Free verbal response (open-ended questions)	×		
Thε	The Earth in Space										
4.	Recognize that the appearance of the moon changes.	×	×		×			paper and pencil task; work-sample evaluation; assessment of a group project	×		
2.	Understand how the movement of the Earth determines the seasons and the length of day and night.	×	×		×	×		Work-sample evaluation; paper and pencil task; assessment of a group project			
The	The Dynamic Earth										

Farget Skills 6. Recognize and describe the different types of the Earth's materials. 7. Recognize that human-made activities affect the surface of the Earth. 8. Recognize that human-made activities affect the surface of the Earth. 9. Observe rocks and minerals. 10. Identify geological features of the Earth. 11. Relate events in daily life to a special components. 12. Understand that the atmosphere is a special science of a variety of components. 13. Physical Science 14. Physical Science 15. Matter 16. Recognize that human-made activities affect the surface of the Earth. 16. Identify geological features of the Earth. 17. Relate events in daily life to a special features of the Earth. 18. Recognize that human-made activities affect the surface of the Earth. 19. Observe rocks and minerals. 10. Identify geological features of the Earth. 11. Relate events in daily life to a special features of the Earth. 12. Understand that the atmosphere is a special special features of the activities affect the atmosphere is a special special features of the activities affect the atmosphere is a special special features of the activities affect the atmosphere is a special special features of the activities affect the atmosphere is a special special features of the special sp	ERIC'	Jubject: Science Grade Level: Third	nird						Skills-Based Scope and Sequence K-6	enba	nce	¥
recognize and describe the tearth's territy agroup project, paper and pencil task agroup project, paper and pencil task aterials. Cognize that human-made twites affect the surface of the trith. Cognize that human-made twites affect the surface of the twites of the surface of the twites of the twites of the twites of the twites of the water cycle. A X X X X X Paper and pencil task; assessment of a group project the water cycle. Paper and pencil task; assessment of a group project the water cycle. Paper and pencil task; assessment of a group project the water cycle. Paper and pencil task; assessment of a group project the water cycle. Paper and pencil task; assessment of a group project the water cycle. There events in daily life to the water cycle. Paper and pencil task; assessment of a group project the water cycle. Paper and pencil task; assessment of a group project. Paper and pencil task; assessment of a group project. Paper and pencil task; assessment of a group project.		rarget Skills	Intro- duced	Rein- forced			Applied Analysis	Synth			Applied nalysis	Synth Eval
Free verbal response (open-ended questions); free written response furth. Free verbal response (open-ended questions); free written response (essay, detail, or explanation); work-sample evaluation rith. Free verbal response (open-ended questions); work-sample evaluation rith. Free verbal response (open-ended questions); work-sample evaluation antity geological features of the X X X X X Paper and pencil task; assessment of a group project; teacher observation antity geological features of the xater cycle. Free verbal response (open-ended questions); work-sample evaluation antity geological features of the X X X X X Paper and pencil task; assessment of a group project. Free verbal response (open-ended group project)			×	×	-	×			of	×		
roggnize that human-made X X X X Free verbal response (open-ended questions); work-sample evaluation at the surface of the x X X X Paper and pencil task; assessment of a group project the water cycle. Inderestand that the atmosphere is x X X X Paper and pencil task; assessment of a group project decomponents. Inderestand that the atmosphere is x X X X Paper and pencil task; assessment of a group project decomponents. Inderestand that the atmosphere is x X X X Paper and pencil task; assessment of a group project decomponents.				×		×			ed ork-	×		
Paper and minerals. X X X X X Paper and pencil task; assessment of a group project; teacher observation antify geological features of the X X X X X X Paper and pencil task; assessment of a group project and pencil task; assessment of a group project bects of the water cycle. X X X X X X X X Paper and pencil task; assessment of a group project and pencil task; assessment of a group project and pencil task; assessment of a group project and pencil task assessment of a group project and pencil task assessment of a group project and pencil task and serior and s	<u> </u>		×	×		×				×		
entify geological features of the X X X X X Agroup project group project Inth. Paper and pencil task; assessment of a group project group life to X X X X X Agroup project group group project group group project group gro			×	×		×			t of a	×	_	
Paper and pencil task; assessment of a group life to X X X X agroup project group project group that the atmosphere is X X X X X X X Advertions); paper and pencil task ade of a variety of components.			×	×		×			ncil task; assessment of a	×		
iderstand that the atmosphere is X X X X X X X X X X Ade of a variety of components. Science	`		×	×		×			ncil task; assessment of a	×		
Physical Science Matter	`		×	×		×				×		
Matter		Physical Science										
		Vatter										

Science Grade Level: Third

Ē	Target Skills	Intro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
-	Describe observable properties of the states of matter.		×		×			Free verbal response (open-ended questions); written response (essay, detail, or explanation); assessment of individual project	×		
7.	Describe characteristics of objects (color, flexibility, composition, shape, size, texture, weight, and luster).		×		×			Assessment of a group project; free verbal response (open-ended questions); teacher observation	×		
<u>က</u> ်	Observe the difference between chemical changes and physical changes.	×	×	THE RESERVE TO SERVE THE PARTY OF THE PARTY	×			Assessment of a group project; free verbal response (open-ended questions); teacher observation	×	×	
En	Energy										
4.	Explain ways that energy is useful and important.	×	×		×			Free verbal response (open-ended questions); free written response (essay, detail, or explanation); paper and pencil task	×		
ري ک	Recognize things and processes that give off heat.	×			×			Free verbal response (open-ended questions); free written response (essay, detail, or explanation); paper and pencil task	×		

Page 16

45

Skills-Based Scope and Sequence K-6

								Skills-Based Scope and Sequence K-6	Sequ	2110	K-6
Та	Target Skills	Intro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
<u>ن</u>	Explain the effects of heat on matter.	×			×			Free verbal response (open-ended questions); free written response (essay, detail, or explanation); paper and pencil task	×		
7.	Explore sound (characteristics, how it is produced, and transmitted).		×			×		Assessment of a group project; teacher observation		×	
Fo	Force and Motion										
ω	Understand that gravity is a force that pulls objects toward the Earth.	_	×		×			Free verbal response (open-ended questions); free written response (essay, detail, or explanation)	×		
<u>ი</u>	Demonstrate that motion is a result of applying forces that are unequal.	×				×		Teacher observation; assessment of individual project		×	
Sc	Scientific Method										
₹	Apply scientific method informally.		×		×			Assessment of individual project; free written response (essay, detail, or explanation); paper and pencil task	×		
5.	Recognize that scientists use the scientific method.		×		×		:	Assessment of a group project; free verbal response (open-ended questions); teacher observation	×		

Grade Level: Third ESIGN TO THE TRANSPORT TO THE TRANSPORT

	Та	Target Skills	thtro- duced	Rein- forced	Long	Factual	Applied S Analysis	Synth	Sample Assessment Methods	Factual	Applied Analysis	Synth
Classify plants and animals	Ë	e Science										
Classify plants and animals according to their features (physical, structural, behavioral). Examine how fossils provide	Dis	ersity										
Examine how fossils provide	-	Classify plants and animals according to their features (physical, structural, behavioral).	×	×		×			Assessment of individual project; free written response (essay, detail, or explanation); paper and pencil task		×	
Examine inherited attributes of living things (physical feature and developmental patterns). Understand that the body is a system requiring basic nutritional needs. Identify and give the function of bones and muscles. Understand the cause and effect of the human body.	2.	Examine how fossils provide evidence of prehistoric life.	×	×		×			Free verbal response (open-ended questions); work-sample evaluation		×	
Understand the the body is a system requiring basic nutritional needs. Identify and give the function of bones and muscles. Understand the cause and effect of cood/bad care of the human body.	က်	Examine inherited attributes of living things (physical feature and developmental patterns).	×	×		×			Assessment of a group project; free verbal response (open-ended questions); free written response (essay, detail, or explanation)		×	
Understand that the body is a X X X X X x system requiring basic nutritional needs. Identify and give the function of X X X X X X X Duderstand the cause and effect of X X X X X X X X X X X X X X X X X X	Hu	man Body										
Identify and give the function of X X X X X X X X X Dones and muscles. Understand the cause and effect of X X X X X X Applied care of the human body.	4.	Understand that the body is a system requiring basic nutritional needs.	×	×		×			Free written response (essay, detail or explanation; paper and pencil task; work-sample evaluation)	×		
Understand the cause and effect of X X X X X X X X X X X X X X X X X X	5.	Identify and give the function of bones and muscles.	×	×		×			Paper and pencil task; assessment of individual project; work-sample evaluation	×		
	9	Understand the cause and effect of good/bad care of the human body.	×	×		×			Free verbal response (open-ended questions)	×	×	

49

Skills-Based Scope and Sequence K-6

Full Text Provided by ERIC	EDIC	Jubject: Science Grade Level: Third	ird						Skills-Based Scope and Sequence K-6	• Inh	ce I	y-
	Та	Target Skills	Intro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods		Applied S Analysis	Synth
	Cells	S//										
	7.	Know that the smallest unit of life is called a cell.	×	×		×			Paper and pencil task; free written response (essay, detail, or explanation)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
	ω.	Recognize that living things are made of one or more cells.	×	×		×			Paper and pencil task; free written response (essay, detail, or explanation)			
	Inte	Interdependence					-					
	6	Recognize helpful and harmful effects of organism.	×	×		×			Teacher observation; paper and pencil X task			
	10.	Describe how various organisms satisfy their needs (food, water, air, shelter, space) within their environments.	×	×		×			Assessment of a group project; paper X and pencil task; work-sample evaluation	<u> </u>	_	
	11.	Understand that species depend on one another and on their environment for survival.	×	×		×			Free verbal response (open-ended X questions); free written response (essay, detail, or explanation)		<u> </u>	
	Sc	Science Investigations										
		Investigate scientific information through the study of current magazines, books, and Internet.	×			×			Oral or written report			
1												

								ı
	,				:			
:: ('	Ę	5	400	Popular	Ę.	•	Inthe Rein Long Faction Applied South 1	

Arth and Space Science Now the basic characteristics of stars, planets, and moons. Know that the sun is a star. Compare stars and planets. Know that our solar system is a sun-centered system. Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship between the moon and tides.	Ĺ	Farget Skills	Intro- duced	Rein- forced	Long	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied Analysis	Synth Eval
Know the basic characteristics of stars, planets, and moons. Know that the sun is a star. Compare stars and planets. Know that our solar system is a sun-centered system. Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship between the moon and tides.	Щ	irth and Space Science										
Know the basic characteristics of stars, planets, and moons. Know that the sun is a star. Compare stars and planets. Know that our solar system is a sun-centered system. Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship between the moon and tides.	14	e <i>Univers</i> e										
Know that the sun is a star. Compare stars and planets. Know that our solar system is a sun-centered system. Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship between the moon and tides.	<u> </u>	Know the basic characteristics of stars, planets, and moons.	×			×			Book or teacher-made test	×		
Know that our solar system is a sun-centered system. Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship between the moon and tides.	2.	Know that the sun is a star.	×	×	×	×			Book or teacher-made test	×		
Know that our solar system is a sun-centered system. Be Earth in Space Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship to between the moon and tides.	ю.	Compare stars and planets.		×			×		Group or individual project		×	
Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship X X X X X X X X X X X X X X X X X X X	4.	Know that our solar system is a sun-centered system.		×	×	×	×	×	Group or individual project			×
Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle. Understand the relationship X X X between the moon and tides.	77	ne <i>Earth in Spac</i> e										
Understand the relationship X X X between the moon and tides.	5.	Explain the relationship between the rotation of the Earth on its axis and the day-to-night cycle.		×	×		×		Free verbal or written response		×	
X X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	9	Understand the relationship between the moon and tides.	×			×	×		Free verbal or written response		×	
Earth to the planets, the sun, and the moon.	7.	Understand the relative scale of Earth to the planets, the sun, and the moon.	×			×	×		Free verbal or written response, group or individual project		×	

10 20

Target Skills	Target Skills	lntro- duced	Rein- forced	Long	Factual /	Applied Analysis	Synth	Sample Assessment Methods	Factual	Applied Analysis	Synth Eval
The	The Dynamic Earth										
ω.	Know the basic properties of air.	×			×			Book or teacher-made test	×		
<u>ග</u> ්	Name and explain the use of common weather instruments in predicting and recording weather.		×		×			Book or teacher-made test	×		
10.	Identify the impact of weather on the environment.		×			×		Free verbal or written response		×	
- - - -	Understand the fundamental aspects of weather (pressure systems, air currents,)		×			×		Group or individual project		×	
12.	12. Investigate the properties of rocks and minerals.		×		×	×		Lab work or test, book or teacher-made test, check list, group or individual project	×	×	
13.	Describe the major geographic features of the ocean floor (trenches, mid-ocean ridges,).	×			×			Work-sample evaluation, written or oral test	×		
4.	Identify the living communities in the ocean.	×			×			Free verbal or written response, book or teacher-made test	×		
15.	Understand the importance of the	×			×	×	×	Free verbal or written response			×

Page 21

	Sequence K-6	Factual Applied Synth	
	Skills-Based Scope and Sequence K-6	Sample Assessment Methods	
		Synth Eval	
		Applied Analysis	
		Long Factual Applied Synth Term Level Analysis Eval	
	:	Long Term	
	E.	Rein- forced	
	-our	lntro- duced	
	Grade Level: Fourth		
ER And that Front	Labject: Science	Target Skills	

Tal	Target Skills	Intro- duced	Rein- forced	Long Term	Factual	Applied Sy Analysis Ev	Synth	Sample Assessment Methods	Factual A Level A	Applied S Analysis	Synth Eval
Phy	Physical Science										
Mai	Matter										
4.	Explain that combining two or more materials may change properties of matter.		×			×		Free verbal or written response, book or teacher-made test		×	
2.	Relate actions on objects to changes in those objects.		×			×		Free verbal or written response		×	
რ	Describe physical and chemical change.		×	×	×			Free verbal or written response, book or teacher-made test	×	_	
4.	Recognize that properties of materials differ (solubility, buoyancy, density, transparency, conductivity).	×			×			Book or teacher-made test	×		
5.	Recognize that matter occupies space and has mass.	×		:	×			Free verbal or written response, book or teacher-made test	×		
Ene	Energy					-			_		
ဖ်	Compare the use of various forms of energy.	×			×	×		Group or individual project, free verbal or written response		×	

Tai	Target Skills	Intro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Applied Analysis	od Synth
7.	Explain the differences between conductors and nonconductors of heat.	×			×	×		Teacher observation, lab work or test	×	
ω.	Associate friction with objects charged with static electricity.	×			×	×	×	Lab work or test, free verbal or written response	×	
<u>ල</u>	Investigate simple series and parallel circuits.	×			×			Lab work or test, teacher observation, X free verbal or written response		
10.	Know how fossil fuels were formed and that they cannot be replaced.	×			×			Free verbal or written response		
-	Explain how energy from the sun is used.	×			×	×	×	Group or individual project, free verbal or written response	×	<u> </u>
For	Force and Motion		i							
12.	Explain how force affects motion.	×			×	×		Lab work or test, teacher observation, teacher-student interaction	×	
13.	Investigate simple and compound machines.	×			×			Lab work or test, teacher observation X		
Sci	Scientific Method									
	Apply scientific method formally.	×				×		Teacher observation; free verbal	×	

Science - Fourth

57 7

Page 23

abject: Science Grade Level: Fourth	Fourt	£					Skills-Based Scope and Sequence K-6	Sequ	ence	Y
Target Skills	lntro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
Recognize that scientists use the scientific method.			×		×		Teacher observation; free verbal response (open ended questions)		×	
Generalize the scientific method to problem solving.	×			×			Teacher observation; free verbal response (open ended questions)	×		
Life Science										
Diversity									×	
Classify living things using various characteristics.		X			X	×	Lab work or test			
2. Examine fossil evidence for change in organisms over time.		×		×			Free verbal or written response	×		
Behavior										
3. Examine behaviors of living things (inherited, learned).	×			×	X		Lab work or test, group or individual project	×		
Human Body										
4. Understand the digestive, circulatory, respiratory, and excretory systems.	×			×			Book or teacher-made test, flash cards, group or individual project	×		

5 0

T								okilis-basea ocobe alia oequelice N-o	nhac		Α Φ
	Target Skills	Intro- duced	Rein- forced	Long F	Factual /	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied Analysis	Synth
ర	Cells										
5.	Describe cells as observed with the aid of various technologies.	×			×			Work-sample evaluation, group or individual project	×		
ý.	Understand that cells are specialized according to their functions.	×	-		×	×		Group or individual project, free verbal or written response	×		
Int	Interdependence										
7.	Understand that organisms depend on one another and on their environment for survival.		×		×	×	×	Free verbal or written response, book or teacher-made test		×	
သွ	Science Investigations										
∞΄	Investigate scientific information through the study of current magazines, books, and Internet.		×	·	×			Oral or written report	×		
တ်	Recognize the importance of science for many careers including occupations in the field of science.	×			×	×	×	Free verbal or written response, group or individual projects	×	3	

9

						ļ			•	
<u>T</u>	Target Skills	Intro- duced	Rein- forced	Long	Factual /	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual /	Applied Synth Eva
l ii	Earth and Space Science									
<u> </u>	The Universe									
<u> </u>	Understand that the size of a light source appears to vary with distance from the source.	×				×		Free verbal or written response		×
2.	Know that patterns of stars remain the same even though patterns appear to move across the sky.	×	×			×		Free verbal or written response		×
က်	Explain the variety of components of the solar system.		×	×	×			Book or teacher-made test, free verbal or written response, group or individual projects	×	
‡	The Earth in Space									
4.	Understand the relationship between the moon and tides.		×	×		×	×	Group or individual projects, free verbal or written response		×
رې	Explain the factors that determine seasons.		×	×		×	×	Book or teacher-made test, group or individual projects	_	
1	The Dynamic Earth									
ဖ်	Explain methods that protect the limited natural resources.	×				×	×	Free verbal or written response, group or individual projects	_	×

65

Skills-Based Scope and Sequence K-6

Jabject: Science Grade Level: Fifth

Target Skills	Intro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eve
7. Describe basic components of the rock cycle.	×			×			Book or teacher-made test, work- sample evaluation, paper and pencil task	×		
8. Understand the geological features of the Earth.		×	×	×			Book or teacher-made test, group or individual projects	×		
9. Understand the water cycle.		×	×	×			Book or teacher-made test, group or individual projects	×		
10. Identify and explain conditions that affect weather.		×	×		×		Free verbal or written response	1.76733 - 2. U .	×	
11. Understand the symbols of a weather map.	×	×		×			Book or teacher-made test, work- sample evaluation	×		
12. Relate natural forces to fast and slow changes in the Earth's surface.		×	×			×	Free verbal or written response, book or teacher-made test	The second and decoding the personnel of the second		×
Physical Science										
Matter										
 Describe chemical and physical changes that occur when two or more materials are combined. 		×		×			Lab work or test, work-sample evaluation free verbal or written response	×		

Target Skills	Intro- duced	Rein- forced	Long	Factual Level	Long Factual Applied Synth Term Level Analysis Eval	Synth Eval	Sample Assessment Methods	Factual Level	Factual Applied Synth Eva	Synth Eva
	-									

Grade Level: Fifth

ESTERIOR Science

Та	Target Skills	Intro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eva
N	Determine properties of objects and materials (conductivity, density, magnetism, solubility, transparency, rigidity, and flexibility).	×	×		×	×		Lab work or test, work-sample evaluation		×	
En	Energy				_						
က်	Understand temperature radiation.	×			×	×		Free verbal or written response	×	×	
4.	Explore the production, consumption, transformation, and conservation of energy.	×	×		×	×	×	Group or individual projects		×	
Fol	Force and Motion										
5.	Realize that a gravitational force is created by the components of the Universe.	×			×	×	×	Free verbal or written response		×	
ဖ်	Identify forces required to make objects interact, change directions, or stop.		×		×	×	×	Group or individual projects, lab work or test			×

K-6	mth Eve	
nce	Factual Applied Synth Eve Level Analysis	
edne	Factual Applied Level Analysis	
Skills-Based Scope and Sequence K-6	Sample Assessment Methods	
	Synth	
	Long Factual Applied Term Level Analysis	
	Factual	
	Long Term	
	Intro-Rein- duced forced	
ifth	intro- duced	
abject: Science Grade Level: Fifth	Farget Skills	
ERIC Author Productive time	Targe	

Та	Target Skills	Intro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied B Analysis	Synth Eva
Sci	Scientific Method										_
-	Apply scientific method formally.		×			×		Teacher observation; free verbal response (open ended questions)			×
2.	Recognize that scientists use the scientific method.			×		×		Teacher observation; free verbal response (open ended questions)		×	
რ	Generalize the scientific method to problem solving.	_	×		×			Teacher observation; free verbal response (open ended questions); group or individual projects	.	×	
Life	Life Science										
Div	Diversity										
-	Invent a classification system that serves a specific purpose.		×			×	×	Group or individual projects			×
2.	Explain why living organisms are classified into five kingdoms.	×			×	×		Book or teacher-made test, free verbal or written response		×	
He	Heredity										
က်	Associate physical characteristics with family lineage.	×			×	×		Free verbal or written response	×		
4	Describe the difference between a hybrid and a purebred organism.	×			×			Free verbal or written response	×		

Grade Level: Fifth

Synth Eva Applied Analysis × × Factual Level × × × Book or teacher-made test, free verbal Book or teacher-made test, free verbal Sample Assessment Methods Book or teacher-made test, group or Book or teacher-made test, group or or written response, work-sample or written response, work-sample individual projects, work-sample individual projects, work-sample Free verbal or written response evaluation evaluation evaluation evaluation Synth Eval × Applied Analysis × × Factual Level × × × × × Long Rein-forced × Intro-duced × × × × Identify the basic parts of a cell and Understand that tissues are groups that occur in cells (growth, energy, Understand the control systems of basic functions of the skeletal and the body (nervous and endocrine.) Identify the basic life processes muscular systems in the human reproduction, waste elimination, adaptation to the environment). Describe the components and of cells that are similar in appearance and function. abject: Science their functions. **Target Skills** Human Body body. Cells S. ဖ œί ത്

o-delice v-o	Factual Applied Synth Eva Level Analysis	
Skills-based Scope allu	Sample Assessment Methods	
	Synth	L
	Applied Analysia	
	Factual Level	
	Long Term	
	Rein- forced	
	Intro- duced	
	Target Skills	
	Lugect. Science Grade Level: Filtii	Intro Rein- Long Factual Applied Synth Sample

10. Understand that cells comprise tissue and tissues comprise organs, which together form systems. 11. Recognize that changes in habitats may harm and/or help organisms. 12. Understand that human activities have an impact on ecosystems. Science Investigations 1. Investigate scientific information through the study of current magazines, books, and Internet. 2. Recognize the importance of science for many careers including occupations in the field of science.	Intro- Rein- duced forced	Long 1 Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual	Applied S Analysis	Synth Eva
nges in habitats Ilp organisms. nan activities scosystems. current and Internet. rtance of ireers including ield of science.	×		×	×		Free verbal or written response		×	
nges in habitats Ilp organisms. man activities scosystems. c information f current and Internet. ritance of ireers including ield of science.								_	
nan activities X acosystems. cosystems. information current and Internet. rtance of ireers including ield of science.			×	×	×	Free verbal or written response, group or individual projects		×	-
information current and Internet. rtance of ireers including ield of science.		:	×	×	×	Free verbal or written response, group or individual projects		×	
Investigate scientific information through the study of current magazines, books, and Internet. Recognize the importance of science for many careers including occupations in the field of science.									
Recognize the importance of science for many careers including occupations in the field of science.			×			Oral or written report	×		
			×	×	×	Free verbal or written response, group or individual projects	×		
3. Research science topics. X	×			×		Oral or written report, group of individual projects		×	
Recognize relationships among X science, technology, and society.			×	×	×	Free verbal or written response, group or individual projects		×	×

73

Skills-Based Scope and Sequence K-6

7 9	Synth Eve
nce	Factual Applied Synth Eve Level Analysis
edne	Factual
Skills-Based Scope and Sequence K-6	Sample Assessment Methods Free verbal or written response, group or individual projects
	Synth Eval
	sctual Applied Synth evel Analysis Eval X X X
	Factual Applied Level Analysis
	Long
	Rein- forced
£	onico- duced X
Jubject: Science Grade Level: Fifth	Target Skills 5. Apply scientific knowledge and processes from one science (Earth and Space, Physical, Life) to another field of study.
Science Scienc	Target Skills 5. Apply scier processes

Science - Fifth

3	ubject: Science Grade Level: S	Six						Skills-Based Scope and Sequence K-6	neı	Se X
∏a ∏a	Target Skills	Intro- duced	Rein- forced	Long Term	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods Factual		Applied Synth Analysis Eval
Ea	Earth and Space Science									
17	The Universe									
←	Explain the life cycle of a star.	×	×	:	×	×		Book or teacher-made test, free verbal or written response, work sample evaluation		×
7	Explore concepts of outer space (i.e., galaxies).	×			×	×		Individual or group project, book or teacher-made test		×
က်	Describe the basic technology of space exploration.	×			×			Individual or group project, book or teacher-made test		
77	The Earth in Space									
4	Describe the layers of the Earth and its atmosphere and their composition.	×			×	×		Individual or group project, book or Keacher-made test		
5.	Explain how the resources of Earth support life (i.e., water, minerals).	×	×		×	×		Free verbal or written response		×
6.	Understand gravity.		×	×		×		Free verbal or written response		×
7.	Relate the lunar orbit to the phases of the moon.	×			×	×	×	Work sample evaluation		×

7

Grade Level: Six

Synth Applied Analysis × × × Factual Level × × × Free verbal or written response, lab task Sample Assessment Methods Lab task, teacher observation, work Free verbal or written response Free verbal or written response Individual or group project Work sample evaluation sample evaluation Synth Applied Analysis × × × × Factual Level × × × × Long × × Rein-forced × × × Intro-duced × × × × Describe the forms and functions of Distinguish between physical and technology that monitor the Earth Know theories of how the Earth characteristics of solids, liquids, Distinguish between mass and Understand mass and volume. chemical changes in matter. Differentiate observable abject: Science Physical Science was formed. and gases. **Target Skills** and space. weight. Energy Matter œ တ် Ri က

7

×

Free verbal or written response

×

×

×

×

Distinguish between static and

S.

current electricity.

∞

Skills-Based Scope and Sequence K-6

abject: Science Grade Level: Six

6. Descri electri		ancea	200	E .		Analysis	Eval	Sample Assessment Methods	Level	Analysis	Synth
	Describe the relationship between electricity and magnetism.		×			×	×	Book or teacher-made test, free verbal or written response, individual or group project			×
7. Compar circuits.	Compare simple series and parallel circuits.		×	×		×		Book or teacher-made test, free verbal or written response, individual or group project, lab task		×	
Force and Motion	Motion										
8. Descri magnii betwee	Describe the relationship of magnitude of force to distance between two objects (i.e., distance between two magnets).	×			×	×		Free verbal or written response		×	
9. Unders relative	Understand that motion is judged relative to some other object or point.	×			×	×		Free verbal or written response, work sample evaluation	×		
10. Relate work.	 Relate energy and force effect work. 		×		×	×	×	Free verbal or written response, work sample evaluation	×	_	
11. Demor machir	Demonstrate ways that simple machines can change force.		×		×	×	×	Individual or group project, lab task		×	
12. Compa skeleta the hu	Compare simple machines to the skeletal and muscular systems of the human body.	×	×		×	×	×	Individual or group project, work sample evaluation		×	

83

Skills-Based Scope and Sequence K-6

Skills-Based S	
Six	
Grade Level: §	
ject: Science	

Та	Farget Skills	lntro- duced	Rein- forced	Long	Factual	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
13.	. Analyze simple machines for mechanical advantage and efficiency.		×			×	×	Lab task			×
လိ	Scientific Method										
<u></u>	Apply scientific method formally.			×	_	×		Teacher observation; free verbal response (open ended questions)			×
2	Recognize that scientists use the scientific method.	_		×		×		Teacher observation; free verbal response (open ended questions)		×	
က်	Generalize the scientific method to problem solving.		×		×			Teacher observation; free verbal response (open ended questions); group or individual projects		×	
.	Life Science										
Di	Diversity										
+	Compare the distinguishing characteristics of organisms.		×			×	_	Book or teacher-made test		×	
7.	Understand how different organisms get their food and convert it to useful forms of energy.	×			×	×	×	Book or teacher-made test, individual or group project		_	×
ပိ	Cells										

Page 37

യ

Science - Sixth

Skills-Based Scope and Sequence K-6

ERIC	ubject: Science Grade Level: S	Six						Skills-Based Scope and Sequence K-6	Sequ	ence	4
	Target Skills	Intro- duced	Rein- forced	Long Term	Factual /	Applied Analysis	Synth	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
<u> </u>	 Compare structure and function of plant and animal cells. 	×			×	×		Book or teacher-made test, individual or group project	× × 14 · · ·	×	
<u> </u>	 Explain basic life functions of single cell organisms. 	×			×	×		Book or teacher-made test		×	
	Human Body										
	 Describe the components and basic functions of the growth and development systems (reproduction, life cycles, and growth). 	×			×			Book or teacher-made test, work sample evaluation	×		
	Understand how the body systems work together.		×	×	×	×	×	Book or teacher-made test, individual or group project, work sample evaluation		×	
1*	 Understand the nature of diseases (cause, care, prevention). 		×		×	×	×	Book or teacher-made test, individual or group project			×
	 Identify the beneficial and harmful effects of drugs on the body. 		×		×	×	×	Work sample evaluation, book or teacher-made test, free verbal or written response			×
	Interdependence										
<u> </u>	 Explain interdependence among humans, between plants and animals, and among ecosystems. 		×		×	×	×	Individual or group project, free verbal or written response		×	

	Six
	Grade Level:
	Science
ERI Full text Provided	ubject:

La La	Target Skills	intro- duced	Rein- forced	Long	Factual Level	Applied Analysis	Synth Eval	Sample Assessment Methods	Factual Level	Applied Analysis	Synth Eval
10.	Compare salt water communities (oceans, gulfs, beaches, estuaries, marshes).	×	×		×	×	×	Individual or group project, free verbal or written response			×
11.	Differentiate between the two main interconnected global food webs (terrestrial and aquatic).	×	×	All and the second of the seco	×	×	×	Individual or group project, free verbal or written response		_	×
12.	Describe the Earth's biomes and the interdependence of their populations.	×	×	general ingenities and desirable statement as	×	×	×	Individual or group project, free verbal or written response		×	
Sci	Science Investigations										
4.	Investigate scientific information through the study of current magazines, books, and Internet.		×		×			Oral or written report	×		
2	Recognize the importance of science for many careers.			×	×	×	×	Free verbal or written response, group or individual projects	×		
_. ب	Research science topics.		×	×		×	×	Oral or written report, group of individual projects		×	
4.	Recognize relationships among science, technology, and society.		×		×	×	×	Free verbal or written response, group or individual projects			×

Page 38

ග

Skills-Based Scope and Sequence K-6

×

X X X Free verbal or written response, group or individual projects. oral or written reports
×
×
×
×
5. Investigate how science and the scientific method can be used to find solutions to current problems of society.

national origin, age, or disability in any educational programs or activities receiving federal financial assistance. (Title VI and VII of the Civil Rights Act of 1964; Title IX of the Educational Amendments of 1972; Section 504 of the Federal law prohibits discrimination on the basis of race, color, religion, sex, Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990.) It is the policy of the Idaho State Department of Education not to discriminate in any educational programs or activities or in employment practices. Inquiries regarding compliance with this nondiscriminatory policy may be Box 83720, Boise, Idaho 83720-0027, (208) 332-6800, or to the Director, directed to Dr. Anne C. Fox, State Superintendent of Public Instruction, P.O. Office of Civil Rights, Department of Education, Washington, D.C.



U.S. Department of Education



Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

REPRODUCTION BASIS

This document is covered by a signed "Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.
This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

